CONTENTS OF VOLUME 4

Number 1

Special Issue: Chronobiology and Ulcerogenesis

K. J. Vener, J. G. Moore and S. Szabo	1	Guest Editorial: Chronobiology and Ulcerogenesis
S. H. Ackerman and R. D. Shindledecker	3	Chronobiologic factors in experimental stress ulcer
Y. Tache	11	The peptidergic brain–gut axis: influence on gastric ulcer formation
C. E. Olson	19	A chronobiologic approach to ethanol and acidified aspirin injury of the gastric mucosa in the rat
S. Szabo and G. Pihan	31	Development and significance of cysteamine and propionitrile models of duodenal ulcer
U. Ventura, F. Carandente, E. Montini and T. Ceriani	43	Circadian rhythmicity of acid secretion and electrical function in intact and injured rat gastric mucosa—the relation of timing to ulcerogenesis
J. P. Accary, R. Salmon, M. Dubrasquet and S. Bonfils	53	Small bowel and plasma gastrin rhythms in cats
D. Pansu, M. Vagne, A. Reinberg and M. Mechkouri	59	Circannual and circa-hemiannual rhythms of basal and stimulated gastric secretion in conscious cats
A. Dubois	69	Stress ulceration—clinical relevance of animal and human studies
B. Tarquini and K. J. Vener	75	Temporal aspects of the pathophysiology of human ulcer disease
K. Gibiński	91	A review of seasonal periodicity in peptic ulcer disease
J. G. Moore and F. Halberg	101	Circadian rhythm of gastric acid secretion in active duodenal ulcer: chronobiological statistical characteristics and comparison of acid secretory and plasma gastrin patterns with healthy subjects and post-vagotomy and pyloroplasty patients
J. G. Moore and R. H. Goo	111	Day and night aspirin-induced gastric mucosal damage and protection by Ranitidine in man
K. J. Vener, J. G. Moore, S. Szabo and M. H. Smolensky	117	Summary and Perspectives: Chronobiology and Ulcerogenesis in 1987

Contents

Number 2

Obituary
T. V. Driessche — 123 — H.-G. Schweiger

Letter to the Editors
W. Schwarz, J. Entfellner and O. P. Hornstein — 125 — Impotence and sclerodermic syndromes

Short Communication
J. Minten, P. Devos, E. Kühn, M. De Roo and H. De Geest — 127 — Half-life of thyroxine in dogs: explanation for the diurnal plasma level variations?

Review
T. Åkerstedt, L. Torsvall and M. Gillberg — 129 — Sleepiness in shiftwork. A review with emphasis on continuous monitoring of EEG and EOG

C. J. de Souza and A. H. Meier — 141 — Circadian and seasonal variations of plasma insulin and cortisol concentrations in the Syrian hamster, *Mesocricetus auratus*

J.-C. Cal, F. Lemoigne, R. Crockett and J. Cambar — 153 — Circadian rhythm in gamma glutamyltranspeptidase and leucine aminopeptidase urinary activity in rats

J. Nishikawa, A. Kast and H. Albert — 161 — Circadian rhythm of the liver of male rats dosed with phenobarbital—I. Organ weight, cellular structures, glycogen contents and mitotic activity

J. Nishikawa, T. Yabe, A. Kast and H. Albert — 175 — Circadian rhythm of the liver of male rats pre-treated with phenobarbital—II. Hexobarbital sleeping time and lipids content in liver and serum

A. M. Rosenwasser, S. J. Hollander and N. T. Adler — 183 — Effects of pregnancy and parturition on free-running circadian activity rhythms in the rat

J. A. Byers — 189 — Novel fraction collector for studying the oviposition rhythm in the turnip moth

M. A. Readey — 195 — Ultradian photosynchronization in *Tetrahymena pyriformis* GLC is related to modal cell generation time: further evidence for a common timer model

J. P. Ravault, A. Reinberg and M. Mechkouri — 209 — Circadian and circahemidian rhythms in plasma prolactin of the ram: seasonal changes

A. M. Symons, J. Arendt, A. L. Poulton and J. English — 219 — Induction of early seasonal sensitivity to melatonin in Suffolk-Cross ewes

A. C. Bobbert and J. H. van Hartevelt	225	Effects of illumination on the rabbit's EEG during the two phases of its circadian rhythm
F. Levi, J. Benavides, Y. Touitou, D. Quarteronet, T. Canton, A. Uzan, A. Auzeby, C. Gueremy, J. Sulon, G. le Fur and A. Reinberg	235	Circadian rhythm in the membrane of circulating human blood cells: microviscosity and number of benzodiazepine binding sites. A search for regulation by plasma ions, nucleosides, proteins or hormones
P. Cugini, G. Murano, P. Lucia, C. Letizia, M. Lisanu, D. Scavo, R. F. Gillum, J. Y. Lee, F. Halberg and Y. Koga	245	Effects of a mild and prolonged restriction in sodium or food intake on the circadian rhythm of aldosterone and related variables
S. Sensi and F. Capani	251	Chronobiological aspects of weight loss in obesity: effects of different meal timing regimens
B. Randem, M. H. Smolensky, B. Hsi, D. Albright and S. Burge	263	Field survey of circadian rhythm in PEF of electronics workers suffering from colophony-induced asthma
J. Arendt and J. Broadway	273	Light and melatonin as zeitgebers in man
V. de Leonardis, M. De Scalzi, R. Vergassola, S. Romano, A. Becucci and P. Cinelli	283	Circadian variations of heart rate and premature beats in healthy subjects and in patients with previous myocardial infarction
P. Cohen	291	The influence on survival of season of onset of childhood acute lymphoblastic leukemia (ALL)
Announcements		
	299	An Electronic Journal for Chronobiologists Interested in Human Activity Monitoring
	300	International Society for Chronobiology 1987 Hoechst Prizes

Number 3

Special Issue: Circadian Rhythm-Adapted Theophylline Schedules for Asthma

M. H. Smolensky, G. E. D'Alonzo, G. Kunkel and P. J. Barnes	301	Editorial
M. H. Smolensky, G. E. D'Alonzo, G. Kunkel and P. J. Barnes	303	Day–night patterns in bronchial patency and dyspnea: basis for once-daily and unequally divided twice-daily theophylline dosing schedules
B. Lemmer and G. Labrecque	319	Chronopharmacology and chronotherapeutics: definitions and concepts

V. W. Steinijans, H. Trautmann, E. Johnson and W. Beier	331	Theophylline steady-state pharmacokinetics: recent concepts and their application in chronotherapy of reactive airway diseases
P. Dorow and V. W. Steinijans	349	Therapeutic advantage of unequal dosing of theophylline in patients with nocturnal asthma
G. Kunkel, V. W. Steinijans and K. Borner	359	Chrono-optimization of the time of evening administration with unequally divided twice-daily theophylline
D. Reinhardt, D. Berdel, G. Heimann, G. Kusenbach, A. von Berg, E. Johnson, V. W. Steinijans and H. Staudinger	369	Steady state pharmacokinetics, metabolism and pharmacodynamics of theophylline in children after unequal twice-daily dosing of a new sustained-release formulation
B. Bruguerolle, F. Philip-Joet, M. Parrel and A. Arnaud	381	Unequal twice-daily, sustained-release theophylline dosing in chronic obstructive pulmonary disease
J. H. Wilkens, H. Wilkens, M. Heins, L. Kurtin, M. Oellerich and G. W. Sybrecht	387	Treatment of nocturnal asthma: the role of sustained-release theophylline and oral β-2-mimetics
P. D. Goldenheim, E. A. Conrad and L. K. Schein	397	Treatment of asthma by a controlled-release theophylline tablet formulation: a review of the North American experience with nocturnal dosing
A. Reinberg, F. Pauchet, F. Ruff, A. Gervais, M. H. Smolensky, F. Levi, P. Gervais, D. Chaouat, M.-L. Abella and R. Zidani	409	Comparison of once-daily evening versus morning sustained-release theophylline dosing for nocturnal asthma
H. M. Frankoff, M. H. Smolensky, G. E. D'Alonzo, L. Gianotti, B. Hsi and J. P. McGovern	421	Comparison of sustained-release theophylline scheduled conventionally (twice-daily, equal interval in equal amount) versus once-daily mornings or evenings on circadian pattern of bronchial patency in asthmatics
M. H. Smolensky, P. H. Scott, R. B. Harrist, P. H. Hiatt, T. K. Wong, J. C. Baenziger, B. J. Klank, A. Marbella and A. Meltzer	435	Administration-time-dependency of the pharmacokinetic behavior and therapeutic effect of a once-a-day theophylline in asthmatic children
J. H. G. Jonkman	449	Food interactions with once-a-day theophylline preparations: a review

M. H. Smolensky, G. E. D'Alonzo, G. Kunkel and P. J. Barnes — 459 — Summary and Perspectives: sustained-release theophylline and nocturnal asthma, once-daily and unequal dosing schedules

Announcement — 467 — The 3rd International Conference of Chronopharmacology

Number 4

B. Lemmer, H. Bärmeier, S. Schmidt and P.-H. Lang — 469 — On the daily variation in the beta-receptor–adenylate cyclase–cAMP–phosphodiesterase system in rat forebrain

D. E. Dluzen and V. D. Ramirez — 477 — Daily changes in *in vitro* spontaneous dopamine efflux from the corpus striatum of male rats

H. Yamamoto, K. Nagai and H. Nakagawa — 483 — Role of SCN in daily rhythms of plasma glucose, FFA, insulin and glucagon

K. F. Martin, A. R. Webb and C. A. Marsden — 493 — The behavioural response to the 5-hydroxytryptamine$_{1B}$ ($5HT_{1B}$) receptor agonist—RU-24969 may exhibit a circadian variation in the mouse

H. Dupoisot, H. Bouchet, S. Laoussad and P. de Vernejoul — 499 — Chronorhythms of the circulating erythrocytes and leukocytes—correlation with the E.S.R. cycles

A. Botta, B. Bruguerolle, R. Bartolin and G. Bouvenot — 509 — A chronobiological study of delta-amino levulinic acid urinary excretion

R. R. Klevecz and P. S. Braly — 513 — Circadian and ultradian rhythms of proliferation in human ovarian cancer

P. Koch, H. Montagner and R. Soussignan — 525 — Variation of behavioral and physiological variables in children attending kindergarten and primary school

M. Couderchet and W. L. Koukkari — 537 — Daily variations in the sensitivity of soybean seedlings to low temperature

L. Rensing, A. Bos, J. Kroeger and G. Cornelius — 543 — Possible link between circadian rhythm and heat shock response in *Neurospora crassa*

Announcements — 551 — Summer course on chronobiology at the University of Sao Paulo: a four year experience in Sao Paulo, Brazil

552 — European Year of the Environment International Symposium: Man–Health–Environment

i — Volume Contents, Author and Subject Indexes for Volume 4